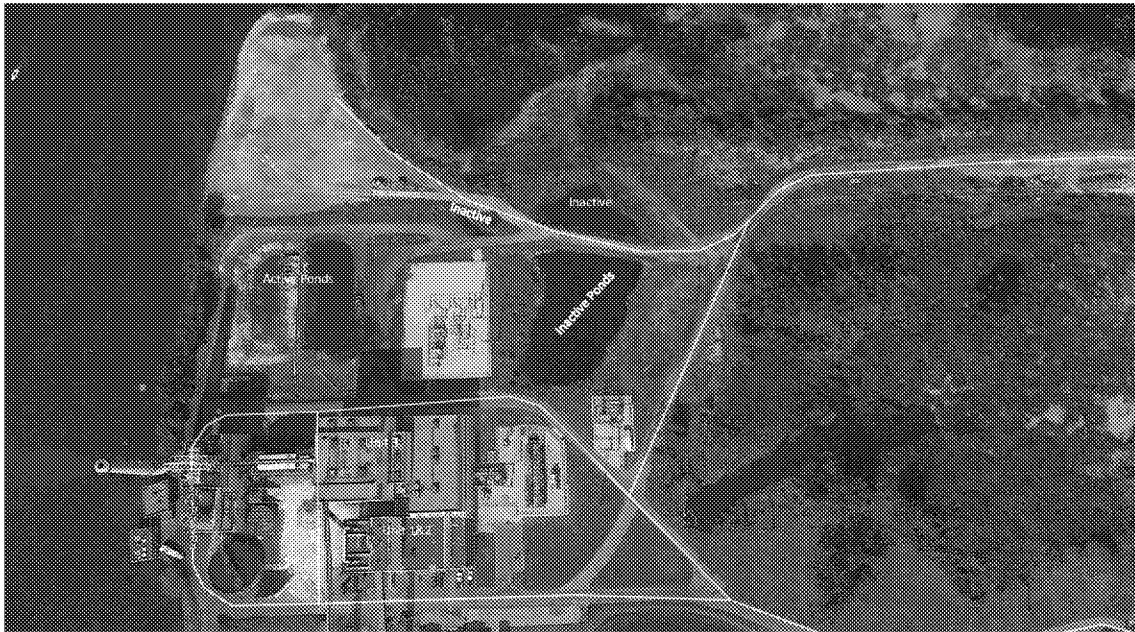


Grand Haven Board of Light & Power
J.B. Sims Facility
Grand Haven, Michigan



Sims Unit 3 is a 70 MW pulverized Carolina style boiler constructed in 1983. Boiler is served by an Electrostatic Precipitator, and Wet Flue Gas Desulphurization System. Both CCR and Non-CCR wastes are sent to two active clay lined ponds.

Sims has been recommended for closure in June 2020

Why?

- A condition assessment conducted in 2017 identified that large capital investments will be needed for life extension of the plant.
- It is no longer economical to continue operations.
- Other more economical power supply options currently exist.

Why not close sooner?

- Sims cannot be closed sooner due to reliability of the transmission system.
- GHBLP has filed for full Network Integrated Transmission Service (NITS).
- NITS will not be available until June 1, 2020.
- GHBLP needs to complete the upgrade to 12.6 miles of internal 69 kV transmission lines prior to NITS.

Board and City Council are currently deliberating staff's recommendation.

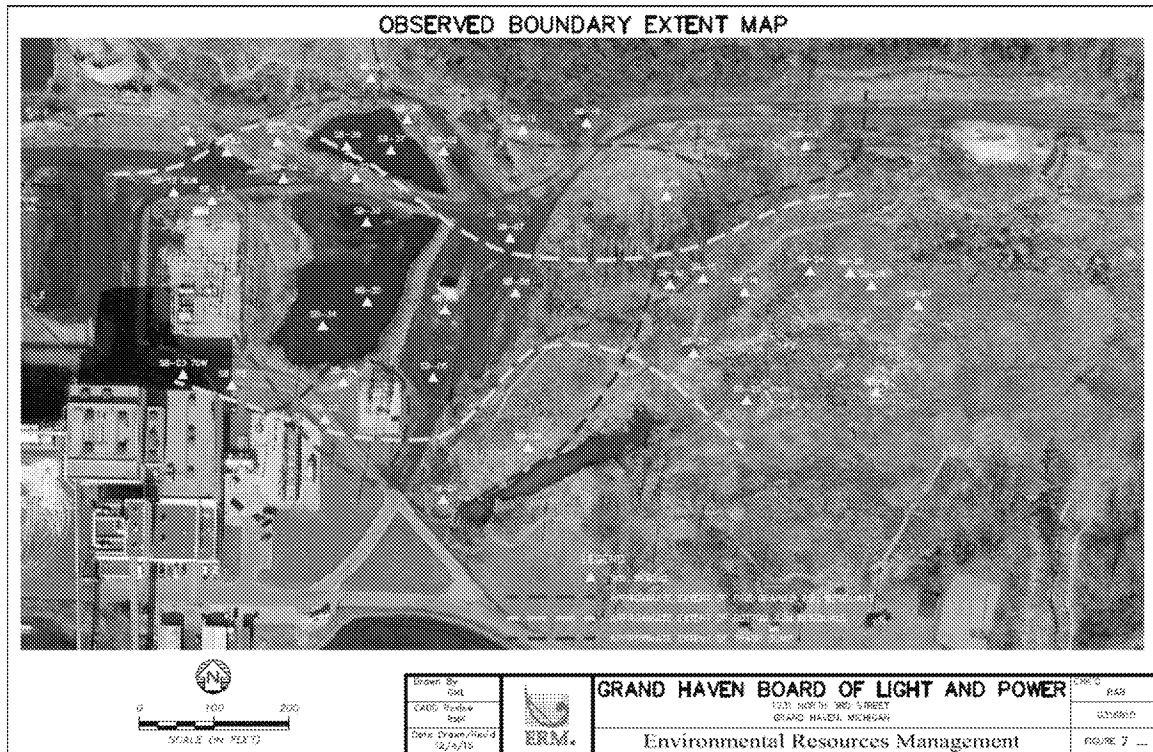
Harbor Island Site History: Before J.B. Sims Power Station



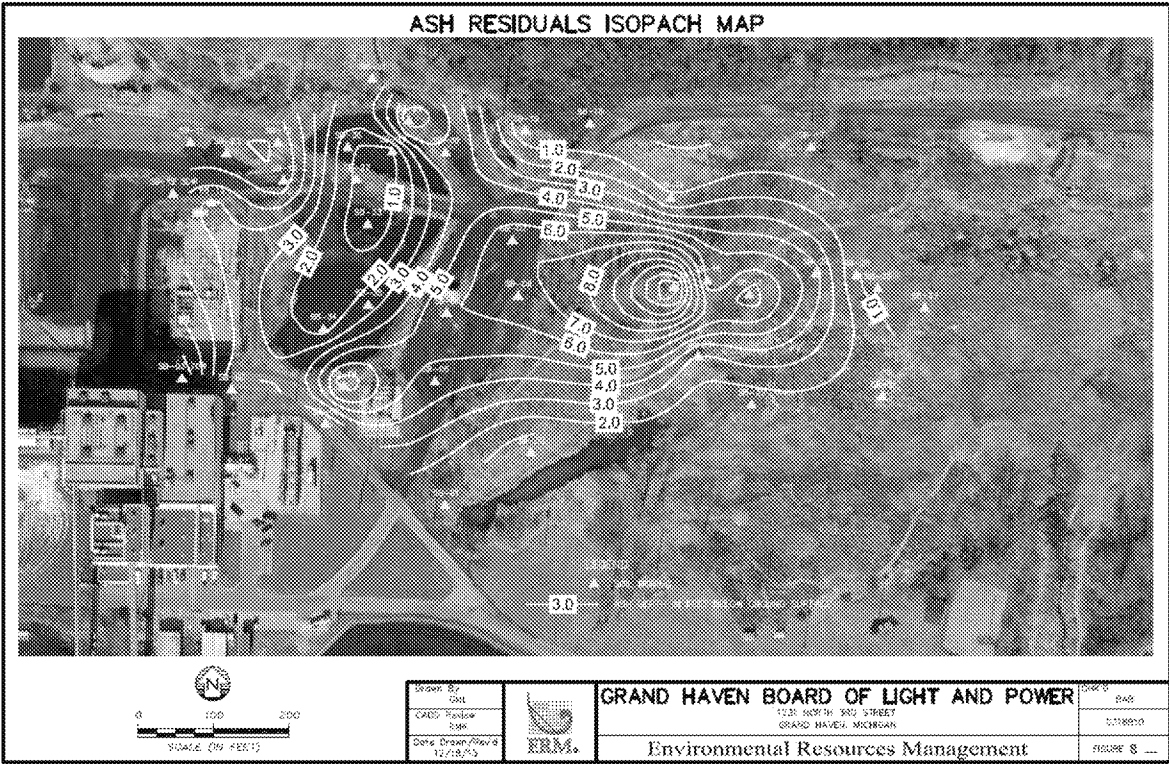
Harbor Island Site History: After Units 1 & 2 but before Unit 3



Harbor Island Site History: Determination of Horizontal Extent of Ash

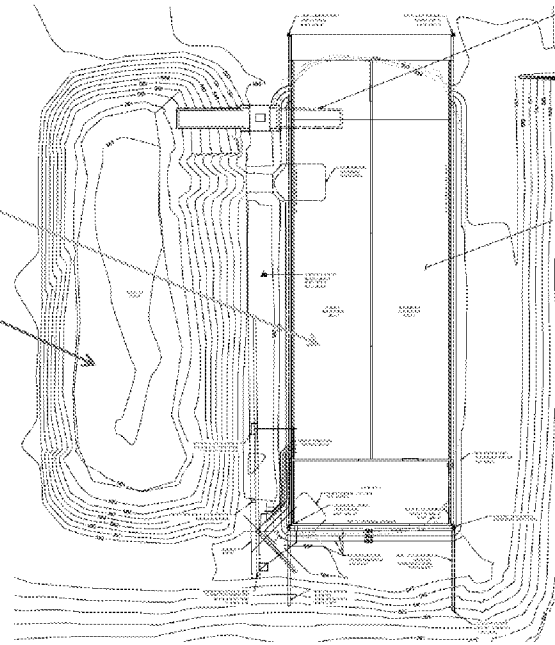
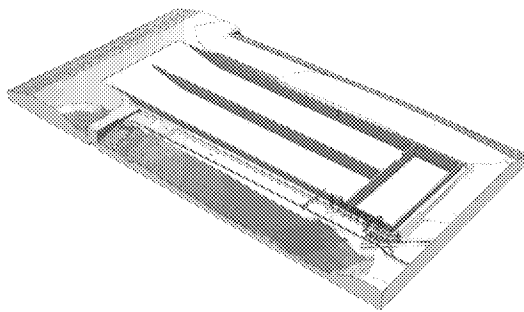
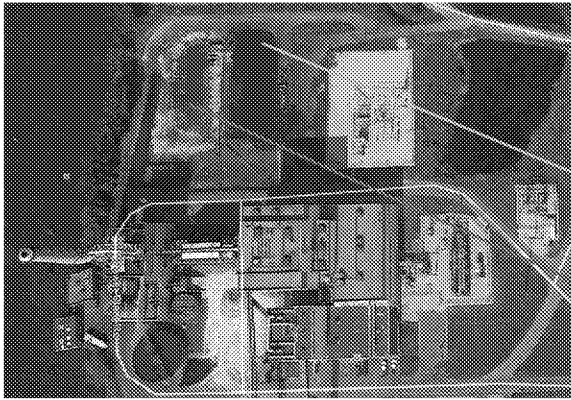


Harbor Island Site History: Determination of Horizontal Extent of Ash



J.B. Sims CCR Retrofit

Designed by Lutz, Daily & Brain



Engineering Estimated costs of construction:
\$500,000

Clarification Request:

Can Alternative Closure Requirements be Used?

- 257.103(b)(1): *Permanent cessation of a coal-fired boiler(s) by a date certain.* Notwithstanding the provisions of §257.101(a), (b)(1), and (d), a CCR unit may continue to receive CCR if the owner or operator certifies that the facility will cease operation of the coal-fired boilers within the timeframes specified in paragraphs (b)(2) through (4) of this section, but in the interim period (prior to closure of the coal-fired boiler), the facility must continue to use the CCR unit due to the absence of alternative disposal capacity both on-site and off-site of the facility. To qualify under this paragraph (b)(1), the owner or operator of the CCR unit must document that all of the following conditions have been met:
 - (i) No alternative disposal capacity is available on-site or off-site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section.
 - There currently is no disposal options either onsite or offsite for this liquid waste.
 - (ii) The owner or operator must remain in compliance with all other requirements of this subpart, including the requirement to conduct any necessary corrective action; and
 - (iii) The owner or operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the closure of the coal-fired boiler.
 - There are no known options in which this would change over the next 24 months, therefore this annual progress report should be relatively straightforward to complete annually.
- (2) For a CCR surface impoundment that is 40 acres or smaller, the coal-fired boiler must cease operation and the CCR surface impoundment must have completed closure no later than October 17, 2023.
 - If the Board agrees with staff's recommendation this schedule is achievable. The plant will likely be taken down in calendar year 2022 with site remediation in 2023. The ponds will be mitigated first to achieve this compliance date.

Questions:

- 1) If the Board certifies that Sims will cease operation within the timeframes above, can the active CCR units continue to receive CCR?
- 2) Can the active CCR units continue to receive non-CCR waste streams?
- 3) What filings need to be made to the agency for certification that the facility will cease operation?

Items for Consideration

- The Sims Plant cannot be shut down at an earlier date due to reliability reasons.
- The goal, if the Board approves of staff's recommendation, is to develop a site mitigation plan for removal of the coal plant and any necessary environmental remediation.
- If approved, the plant would only be ran for approximately 12 of the next 24 months. Operation schedule would be:
 - 2018: June, July, August and December.
 - 2019: January, February, June, July, August and December.
 - 2020: January and February.
- Goal would be to burn the 180,000 tons of coal already committed and to avoid any future purchases.
- The Grand Haven BLP serves 14,000 customers and is considered a relatively small municipal utility.
- Electric costs are paid by Municipal (3%), Residential (27%), Commercial (27%) & Industrial (43%).
- The Harbor Island Site will likely need significant environmental mitigation for both the ash onsite as well as any groundwater impacts from the historical municipal landfill. The intent would be a comprehensive site mitigation strategy.